

LISTING OF THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application.

1. (Currently Amended) An apparatus for delivering acoustic energy to a target site, comprising:

a ~~structure~~catheter; and

a transducer secured to the ~~structure~~catheter, the transducer having a surface configured to be placed on a tissue, the ~~structure~~catheter comprising a channel located adjacent the transducer and adapted for carrying cooling fluid.

2. (Original) The apparatus of claim 1, further comprising a fluid source in fluid communication with the channel.

3. (Currently Amended) The apparatus of claim 2, the ~~structure~~catheter comprising one or more lumens in fluid communication with the fluid source and the channel.

4. (Original) The apparatus of claim 1, further comprising a heat exchanger for cooling fluid.

5 – 7 Cancelled

8. (Withdrawn – Currently Amended) The apparatus of claim 1, the

~~structure~~catheter comprising a handle.

9. (Currently Amended) The apparatus of claim 1, further comprising an acoustic energy sensor secured to the ~~structure~~catheter adjacent the transducer.

10. (Original) An apparatus for delivering acoustic energy to a tissue region, comprising:

a catheter having a distal end, a proximal end, and a lumen extending there between;

a transducer secured to the catheter distal end and configured to deliver acoustic energy to a tissue region; and

means for cooling the catheter distal end.

11. (Original) The apparatus of claim 10, the means for cooling comprising a channel located adjacent the transducer and a fluid source in fluid communication with the channel.

12. (Original) The apparatus of claim 10, further comprising a neurological signal sensor secured to the catheter distal end.

13. (Original) The apparatus of claim 10, further comprising an acoustic energy sensor secured to the catheter distal end.

14 – 20 Cancelled

21. (Currently Amended) A method for delivering acoustic energy to a tissue region within a body, the method comprising:
- introducing a ~~structure~~catheter carrying a transducer into a body;
 - delivering acoustic energy to the tissue region.
 - cooling a tissue adjacent or within the tissue region to reduce heat that is generated from the delivered acoustic energy.
22. (Original) The method of claim 21, further comprising delivering a blood thinning agent to the tissue region prior to delivering the acoustic energy.
23. (Original) The method of claim 21, further comprising sensing a reflected acoustic signal that is associated with the delivered acoustic energy.
24. (Original) The method of claim 23, further comprising analyzing the reflected acoustic signal to determine a location of a vessel.